



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/719,149	11/21/2003	Steven R. Sedlmayr	AUO1020	2117
7590 04/10/2006			EXAMINER	
PatentEsque Law Group, LLP			FINEMAN, LEE A	
P.O. Box 400			ART UNIT	
Los Altos, CA 94023			PAPER NUMBER	
			2872	

DATE MAILED: 04/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

31

Office Action Summary	Application No. 10/719,149	Applicant(s) SEDL MAYR, STEVEN R.	
	Examiner Lee Fineman	Art Unit 2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 2/7/06.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 233-235, 239-249, 253-263, 267-277 and 281-288 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 233-235, 239-249, 253-263, 267-277 and 281-288 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/7/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7 February 2006 has been entered in which claims 233, 247, 261 and 275 were amended. Claims 233-235, 239-249, 253-263, 267-277 and 281-288 are pending.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 233, 239-247, 253-261, 267-275 and 281-288 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muro et al., JP 63236494 A in view of Baur et al., US 5,115,305 and Jachimowicz et al., US 4,995,718.

Muro et al. disclose in figs. 3-4 a system and method of producing a modulated beam of electromagnetic energy/light, comprising:

[a] means (10) for providing a primary beam of electromagnetic energy/light having a predetermined range of wavelengths and randomly changing orientations of a chosen component of electromagnetic wave field vectors;

[b] means (13) for resolving the primary beam of electromagnetic energy/light into a primary first resolved beam (travels toward 15) of electromagnetic energy/light having substantially a first selected predetermined orientation of a chosen component of the electromagnetic wave field vectors (S) and a primary second resolved beam (travels toward 19', 20') of electromagnetic energy having substantially a second selected predetermined orientation of a chosen component of the electromagnetic wave field vectors (P);

[d] means (19', 20', 19'', 20'') for separating each of the primary resolved beams of electromagnetic energy/light into two or more separate beams of electromagnetic energy/light, each of the separate beams of electromagnetic energy/light having a selected predetermined orientation of a chosen component of electromagnetic wave field vectors (P or S);

[e] means (171', 172' (not shown in fig. 4), 173', 171'', 172'' (not shown in fig. 4), 173'') for altering the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of a plurality of portions of each of the separate beams of electromagnetic energy/light by passing each of the separate beams of electromagnetic energy/light through a respective one of a plurality of altering means whereby the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the plurality of portions of each of the separate beams of electromagnetic energy/light is altered in response to a stimulus means by applying a signal means to the stimulus means in a predetermined manner each of the separate beams of electromagnetic energy/light passes through

Art Unit: 2872

the respective one of the plurality of means for altering the selected predetermined orientation of the chosen component of the electromagnetic wave field vectors (Abstract, see description of LC panels);

[f] [i] means (21', 22') for combining the altered separate beams of electromagnetic energy/light of the primary first resolved beam of electromagnetic energy/light into a first single collinear beam of electromagnetic energy/light without substantially changing the altered selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the plurality of portions of each of the separate beams of electromagnetic energy/light, and [ii] means (21'', 22'') for combining the altered separate beams of electromagnetic energy/light of the primary second resolved beam of electromagnetic energy/light into a second single collinear beam of electromagnetic energy/light without substantially changing the altered selected predetermined orientation of the chosen component of the electromagnetic wave field vectors of the plurality of portions of each of the separate beams of electromagnetic energy;

[g] [i] means (18) for resolving from the first single collinear beam of electromagnetic energy a first resolved beam of electromagnetic energy/light having substantially a first selected predetermined orientation of a chosen component of electromagnetic wave field vectors and a second resolved beam of electromagnetic energy/light having substantially a second selected predetermined orientation of a chosen component of electromagnetic wave field vectors, and [ii] means (18) for resolving from the second single collinear beam of electromagnetic energy/light a first resolved beam of electromagnetic energy/light having substantially a first selected predetermined orientation of a chosen component of electromagnetic wave field vectors and a second resolved beam of electromagnetic energy/light having substantially a second selected

Art Unit: 2872

predetermined orientation of a chosen component of electromagnetic wave field vectors; [h] means (18) for combining one of the first or second resolved beams of electromagnetic energy/light of the first single collinear beam of electromagnetic energy/light with one of the first or second resolved beams of electromagnetic energy/light of the second single collinear beam of electromagnetic energy/light to form a third collinear beam of electromagnetic energy/light; means (11) for passing at least one of the resolved beams of electromagnetic energy/light from step [g] to a projection means (6), which is a means for passing one of the resolved beams of electromagnetic energy from step [g] [i] to a first side of a projection means (left side 6, in so far as at least part of the beam is projected to the left side) and a means for passing one of the resolved beams of electromagnetic energy from step [g] [ii] to a second side of a projection means (right side 6, in so far as at least part of the other beam is projected to the right side); and means (19', 20', 19'', 20'') for adjusting the electromagnetic spectrum of at least one of the separate beams of electromagnetic energy/light; wherein the means for adjusting the electromagnetic spectrum of at least one of the separate beams of electromagnetic energy/light is also the separating means and includes means (19', 20', 19'', 20'') for adjusting a predetermined range of wavelengths of at least one of the separate beams of electromagnetic energy/light or wherein the means for adjusting the electromagnetic spectrum of at least one of the separate beams of electromagnetic energy includes a means (19', 20', 19'', 20'') for adjusting a magnitude of at least one of the separate beams of electromagnetic energy (in so far as the magnitude of the remove wavelength is adjusted to zero). Muro et al. disclose the claimed invention except for [c] means for rotating the second selected predetermined orientation of a chosen component of the electromagnetic wave field vectors of the primary second resolved

Art Unit: 2872

beam of electromagnetic energy/light to be substantially the same as the first selected predetermined orientation of a chosen component of the electromagnetic wave field vectors of the primary first resolved beam of electromagnetic energy/light; and [i] means for rotating a selected predetermined orientation of a chosen component of the electric field vectors of the third collinear beam of electromagnetic energy/light. Baur et al. teaches in fig. 1, system and method of producing a modulated beam of electromagnetic energy/light, comprising which includes resolving, rotating, separating, altering, combining and resolving a beam of electromagnetic energy/light. More specifically Baur et al. teach means (33) for rotating the second selected predetermined orientation (P) of a chosen component of the electromagnetic wave field vectors of the primary second resolved beam (24) of electromagnetic energy/light to be substantially the same (S) as the first selected predetermined orientation (S) of a chosen component of the electromagnetic wave field vectors of the primary first resolved beam (26) of electromagnetic energy (column 9, lines 21-28, as well as a second means (45) to be able to recombine the altered beams with a polarized beam splitter (see column 8, lines 2-10). It would have been obvious to one of ordinary skill in the art at the time the invention was made to add the means (both 33 and 45) to rotate polarization of Baur et al. to the system of Muro et al. to be able to use components with like polarizers thus reducing the number of different parts in the system. Further Jachimowicz et al. teaches a three-dimensional projector system (fig. 2) in which a means (48) for rotating a selected predetermined orientation of a chosen component of the electric field vectors of a beam of electromagnetic energy/light may be added to provide a circular polarization state to be projected beam (see column 3, line 57-column 4, line 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to add the

Art Unit: 2872

means for rotating a selected predetermined orientation of a chosen component of the electric field vectors of a beam of electromagnetic energy/light of the projected beam (i.e., the third collinear beam) of Jachimowicz et al. to the system of Muro et al. to have the stereoscopic/three dimensional display be independent of the viewer's orientation (Jachimowicz, column 4, lines 61-66). The method of utilizing the structure of the claim is inherent therein.

4. Claims 234-235, 248-249, 262-263 and 276-277 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muro et al. in view of Baur et al. and Jachimowicz et al., as applied to claims 233, 247, 261 and 275 above, and further in view of Konno et al., US 4,497,015.

Muro et al. in view of Baur et al. and Jachimowicz et al. as applied to claims 233, 247, 261 and 275 above disclose the claimed invention except for wherein the means for providing the primary beam includes means for providing a substantially collimated beam of electromagnetic energy/light and means for providing the initial beam with a rectangular cross sectional area. Konno et al. disclose a light illumination device (fig. 5) which produces a primary beam (at M) which is collimated and has a substantially uniform flux intensity substantially across the initial beam of light (column 5, lines 43-52) and has a rectangular cross sectional area (using lens element 102, fig. 3; column 3, lines 5-8). It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the light source of Muro et al. in view of Baur et al. and Jachimowicz et al. with that of Konno et al. to have a more uniform intensity light beam and provide a more consistent image. The method of utilizing the structure of the claim is inherent therein.

Response to Arguments

5. Applicant's arguments with respect to claims 233-235, 239-249, 253-263, 267-277 and 281-288 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lee Fineman whose telephone number is (571) 272-2313. The examiner can normally be reached on Monday - Friday 7:30 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on (571) 272-2312. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



LAF
April 5, 2006


MARK A. ROBINSON
PRIMARY EXAMINER